Title: THE RATE OF CEREBRAL PALSY AND INTELLECTUAL DISABILITY IN CHILDREN OF MOTHERS WITH AN ALCOHOL-RELATED DIAGNOSIS

Presentation type: Oral
Theme: Child Health

Dr. Colleen M O'Leary, National Drug Research Institute, Curtin University, Perth Western Australia
Ms Jenny Bourke Telethon Institute for Child Health Research, Perth, Western Australia
Dr. Helen Leonard Telethon Institute for Child Health Research, Perth, Western Australia
Ms. Heather D'Antoine Menzies School of Health Research, Darwin, Northern Territory
Professor Anne Bartu School of Nursing, Curtin University, Perth, Western Australia
Ms Linda Watson Telethon Institute for Child Health Research, Perth, Western Australia
Professor Fiona Stanley Telethon Institute for Child Health Research, Perth, Western Australia
Professor Carol Bower Telethon Institute for Child Health Research, Perth, Western Australia

Background and Aims: Heavy prenatal alcohol exposure is reported to increase the risk of cerebral palsy (CP) and intellectual disability. However they are difficult to attribute to prenatal alcohol exposure when the characteristic facial features of Fetal Alcohol Syndrome are absent. This paper presents the rate of CP and intellectual disability in a large, population-based cohort of children born in Western Australia (WA) to mothers with an alcohol-related diagnosis.

Methods: The exposed cohort includes all children of mothers with an alcohol-related diagnosis recorded on the WA linked administrative health datasets 1983-2007 and a randomly selected comparison cohort of children of mothers without an alcohol-related diagnosis. The comparison cohort was frequency matched on maternal age within maternal race and year of birth of her child with women at a ratio of approximately 4:1 for non-Aboriginal and 2:1 for Aboriginal women. There were 23,997 children in the exposed cohort (59.2% non-Aboriginal) and 61,325 comparison children. These data were linked with data from the WA Cerebral Palsy Register (n=293 cases) and the WA Intellectual Disability (IDEA) Database (n= 1,502 cases). Children with a documented genetic cause of intellectual disability were excluded from the analyses.

Results: The overall rate of CP was 4.1/1,000 births in exposed and 3.2/1,000 in the comparison children and for intellectual disability the rates were 34.1/1,000 and 18.4/1,000 respectively. Rates varied by Aboriginal status for CP and intellectual disability and by geographical region for intellectual disability. The results of regression analyses investigating the association between the presence of any maternal alcohol-related diagnosis and the timing of the diagnosis in relation to pregnancy and (1) Pre/perinatally and post-neonatally acquired CP and (2) intellectual disability will be presented.

Conclusions: Prenatal exposure to maternal alcohol-related problems increases the risk of CP and intellectual disability, while post-natal exposure also increases the risk of CP.